

WHAT IS CLAIMED IS:

1. A device for measuring the tension in stressed cables,
said device comprising:

a frame having a pair of ends adapted to engage a said
stressed cable;

5 *Sub
A1* a jack mounted on said frame between its ends for applying a
force on the stressed cable; and

a measuring means on said frame, for measuring the
deflection of the stressed cable.

2. A device as defined in Claim 1 further comprising a hook
means, said hook connected to said jack and adapted for
engagement with said stressed cable.

3. A device as defined in Claim 2 wherein the force of said
jack is applied to the stressed cable through said hook means.

4. A device as ~~defined~~ in Claim 1 wherein the jack is a
hydraulic jack.

5. A device as defined in Claim 1 wherein the jack applies
a pre-set force to the stressed cable.

6. A device as defined in Claim 1 wherein said measuring
means includes a gauge mounted onto said frame.

7. A device as defined in Claim 1 wherein the frame is in
the shape of a "V".

8. A method of detecting the amount of tension in a stressed cable, said method including the following steps:

supporting the stressed cable at a selected pair of spaced apart points;

5 applying a force to the stressed cable sufficient to deflect the cable relative to said supported points; and

measuring the deflection of the stressed cable.

9. A method as defined in Claim 7 wherein the force that is applied to the stressed cable is a known force.

10. A method as defined in Claim 7 wherein the amount of deflection is used to calculate the amount of stress in the stressed cable, by applying the following equation:

$$T = \frac{F}{2\sin\theta} \text{ where } \theta = \tan^{-1} \frac{\Delta}{L/2}$$

wherein the variable "L" refers to the distance between the spaced apart point, "Δ" refers to the deflection, and "θ" refers to the angle of deflection.

11. A device as defined in Claim 2 wherein the jack is a hydraulic jack.

12. A device as defined in Claim 2 wherein the jack applies a pre-set force to the stressed cable.

13. A device as defined in Claim 2 wherein said measuring means includes a gauge mounted onto said frame.

14. A device as defined in Claim 2 wherein the frame is in the shape of a "V".

15. A device as defined in Claim 3 wherein the jack is a hydraulic jack.

16. A device as defined in Claim 3 wherein the jack applies a pre-set force to the stressed cable.

17. A device as defined in Claim 3 wherein said measuring means includes a gauge mounted onto said frame.

18. A device as defined in Claim 3 wherein the frame is in the shape of a "V".